



# technical data

**FCQ-D**

**4-way Blow Ceiling  
Mounted Cassette  
(950mm x 950mm)**



air conditioning systems

# Split Sky Air

# Split - Sky Air



ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment



Daikin units comply with the European regulations that guarantee the safety of the product.



Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.



Daikin Europe N.V. participates in the Eurovent Certification Programme for Air Conditioners (AC), Liquid Chilling Packages (LCP) and Fan Coil Units (FCU); the certified data of certified models are listed in the Eurovent Directory.

Specifications are subject to change without prior notice.

## **DAIKIN EUROPE N.V.**

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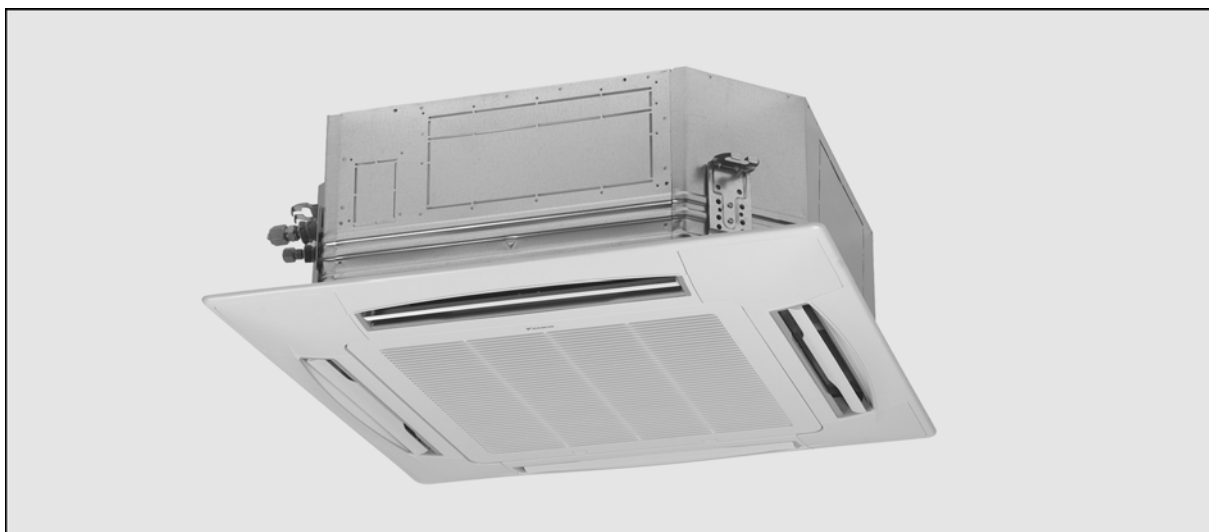
## FCQ-D

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# 1 Features

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- Compact & stylish
- Ideal for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- Fits flush into each ceiling
- Extremely quiet in operation
- Air can be discharged in any of 4 directions
- Possibility to shut 1 or 2 flaps for easy installation in corners or to use 1 or 2 branches
- Air flow distribution for ceiling heights up to 4.2m without loss of capacity.
- Daikin remote controls give you easy control at your fingertips.
- The wired remote control provides you with a schedule timer, enabling to program the air conditioning daily or weekly.
- The optional remote ON/OFF enables you to start/stop the air conditioning from a mobile phone via a telephone remote control (field supply).
- The optional forced OFF enables you to switch off the unit automatically. E.g. when a window is opened, the unit switches off.
- The 'home leave' operation button prevents large temperature differences by continuously operating at a minimum (heating mode) or maximum (cooling mode) preset level while you're out or sleeping. It also allows the indoor temperature to return quickly to your favourite comfort level.



(heat pump)



(optional)



(standard)



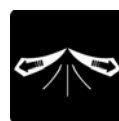
(2 steps)



(optional)



(twin  
application  
only)



(optional)

## 2 Specifications

2-1 NOMINAL CAPACITY AND POWER INPUT						
For indoor units only:						
INDOOR UNITS			FCQ71DV3B	FCQ100DV3B	FCQ125DV3B	FCQ140DV3B
NOMINAL INPUT	Cooling	kW	-	-	-	-
	Heating	kW	-	-	-	-

For combination indoor + outdoor units (air cooled):						
INDOOR UNITS			FCQ71DV3B	FCQ100DV3B	FCQ125DV3B	FCQ140DV3B
OUTDOOR UNITS			RZQ71B8V3B	RZQ100B8V3B/B7W1B	RZQ125B7W1B	RZQ140B7W1B
Nominal capacity	Cooling	nominal kW	3.2~7.1~8.0	5.0~10.0~11.2	5.7~12.5~14.0	6.2~14.0~15.4
	Heating	nominal kW	3.5~8.0~9.0	5.1~11.2~12.8	6.0~14.0~16.2	6.2~16.0~18.0
Nominal input	Cooling	nominal kW	1.98	2.44	3.54	4.56
	Heating	nominal kW	1.97	2.56	3.59	4.52
EER			3.59	4.10	3.53	-
COP			4.06	4.375	3.90	-
Energy label	Cooling		A	A	A	-
	Heating		A	A	A	-
Annual energy consumption	Cooling	kWh	990	1,220	1,770	-

2-2 TECHNICAL SPECIFICATIONS				FCQ71DV3B	FCQ100DV3B	FCQ125DV3B	FCQ140DV3B
Dimensions	Unit	Height	mm	246	288	288	288
		Width	mm	840	840	840	840
		Depth	mm	840	840	840	840
Weight	Machine Weight		kg	24.0	28.0	28.0	28.0
Heat Exchanger	Dimensions	Nr of Rows		2	2	2	2
		Fin Pitch	mm	1.20	1.20	1.20	1.20
		Face Area	m <sup>2</sup>	0.454	0.544	0.544	0.544
		Nr of Stages		10	12	12	12
	Tube type		Hi-XSS (7)				
Fin		Type	Cross fin coil (Multi louver fins and Hi-XSS tubes)				
Fan	Type		Turbo fan				
Air Flow Rate	Cooling	High	m <sup>3</sup> /min	19.0	30.0	30.0	30.0
		Low	m <sup>3</sup> /min	14.0	21.0	24.0	25.0
	Heating	High	m <sup>3</sup> /min	19.0	30.0	30.0	30.0
		Low	m <sup>3</sup> /min	14.0	21.0	24.0	25.0
Fan	Motor	Model		QTS46F15M	QTS46E17M	QTS46E17M	QTS46E17M
		Output (high)	W	30	120	120	120
Cooling	Sound Power	High	dBA	50.0	58.0	58.0	58.0
		Low	dBA	44.0	48.0	51.0	53.0
	Sound Pressure	High	dBA	34.0	43.0	43.0	43.0
		Low	dBA	28.0	33.0	36.0	38.0
Heating	Sound Power	High	dBA	50.0	58.0	58.0	58.0
		Low	dBA	44.0	48.0	51.0	53.0
	Sound Pressure	High	dBA	34.0	43.0	43.0	43.0
		Low	dBA	28.0	33.0	36.0	38.0
Refrigerant	Type		R-410A				
Piping connections	Liquid (OD)	Type	Flare connection				
		Diameter (OD)	mm	9.5	9.5	9.5	9.5
	Gas	Type	Flare connection				
		Diameter (OD)	mm	15.9	15.9	15.9	15.9
	Drain	Diameter (OD)	mm	I.D. 25/O.D. 32			

2-2 TECHNICAL SPECIFICATIONS				FCQ71DV3B	FCQ100DV3B	FCQ125DV3B	FCQ140DV3B
Decoration Panel	Model			BYCP125DJW1			
	Colour			White			
	Dimensions	H	mm	45	45	45	45
		W	mm	950	950	950	950
		D	mm	950	950	950	950
	Weight		kg	5.5	5.5	5.5	5.5
Air Filter			Resin net with mold resistance				
Safety Devices			—	Low pressure switch			
			High pressure switch				
			Fuse				

2-3 ELECTRICAL SPECIFICATIONS				FCQ71DV3B	FCQ100DV3B	FCQ125DV3B	FCQ140DV3B
Power Supply	Name			V3	V3	V3	V3
	Phase			1	1	1	1
	Frequency	Hz		50	50	50	50
	Voltage	V		230	230	230	230

#### NOTES

- Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference : 0m.
- Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference : 0m.
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- In case of drain piping for the outdoor unit, a drain piping kit (option) is needed.

## 3 Options

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Item	Model		FCQ71D	FCQ100D	FCQ125D	FCQ140D
Decoration panel			BYCP125DJW1			
Panel spacer			KDBP55H160WA			
Filter related	High efficiency filter 65%	Colorimetric method	KAFP556D80	KAFP556D160		
	High efficiency filter 90%	Colorimetric method	KAFP557D80	KAFP557D160		
	Replacement high efficiency filter 65%	Colorimetric method	KAFP552H80	KAFP552H160		
	Replacement high efficiency filter 90%	Colorimetric method	KAFP553H80	KAFP553H160		
	Filter chamber		KDDFP55D160			
	Long life filter		KAFJ551C160			
	Ultra long-life filter		KAFP55D160			
	Replacement ultra long-life filter		KAFJ55K160H			
Fresh air intake kit	Chamber type	Without T-shape and fan	KDDP55D160			
		With T-shape, without fan	KDDP55D160K			
	Direct installation type		KDDJ55X160			
Branch duct chamber			KDP55D80	KDP55D160		
Insulation kit for high humidity			KDT-55D80	KDT-55D160		
Remote control	Infrared		BRC7E51W			
	Wired		BRC1D527			
Central remote control			DCS302C51			
Unified ON/OFF control			DCS301B51			
Schedule timer			DST301B51			
Adapter for wiring *1			KRP1B59			
Wiring adapter for electrical appendices *1			KRP4A53			
Installation box for adapter PCB			KRP1D98			

\*1 Installation box for adapter PCB (KRP1D98) is necessary

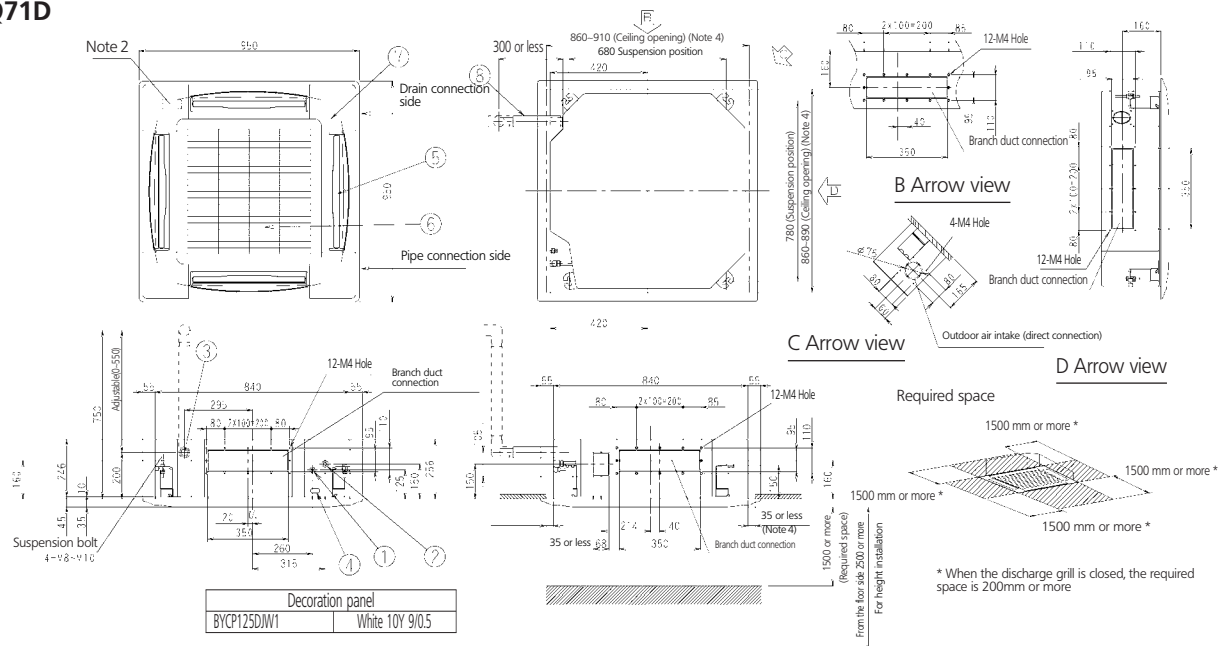
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## 4 Dimensional drawing

### 4 - 1 Dimensional drawing

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#### FCQ71D



#### Note:

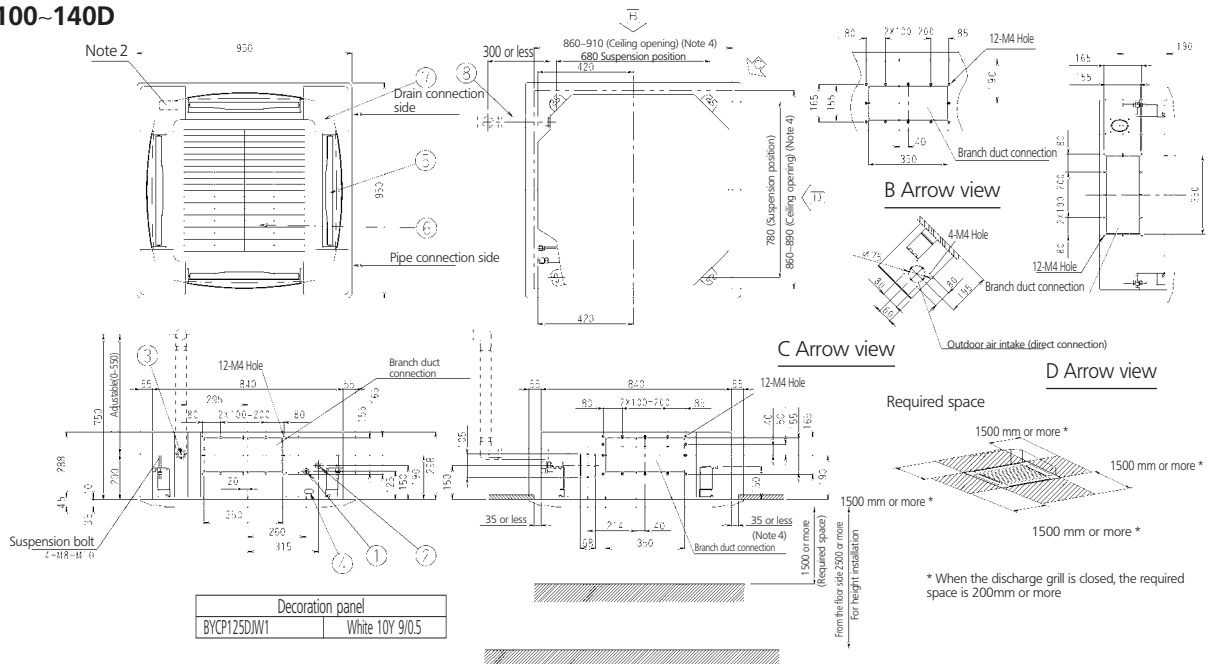
1. Sticking location for manufacture's label  
Manufacture's label for indoor unit: on the bell mouth inside suction grille.  
Manufacture's label for decoration panel: on the inner frame inside suction grille.
2. In case of using an infrared remote control, this position will be a signal receiver.  
Refer to the drawing of infrared remote control in detail

3. When it may exceed 30°C and RH 80% in the ceiling or fresh air is inducted into the ceiling, an additional insulation (Thickness 10mm or more of glasswool or polyethylene form) is required.
4. Though the installation is acceptable up to maximum of 910mm square ceiling opening, keep the clearance of 35mm or less between the main unit and the ceiling opening so that the panel overlap allowance can be ensured.

- 1 Liquid pipe connection  $\phi$  9.5 Flare connection
- 2 Gas pipe connection  $\phi$  15.9 Flare connection
- 3 Drain pipe connection VP25 (O.D.  $\phi$  32)
- 4 Power supply connection / wiring / remote control connection
- 5 Air outlet
- 6 Air suction grille
- 7 Corner decoration cover
- 8 Drain hose (option) O.D.  $\phi$  32 (outlet)

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#### FCQ100~140D



#### Note:

1. Sticking location for manufacture's label  
Manufacture's label for indoor unit: on the bell mouth inside suction grille.  
Manufacture's label for decoration panel: on the inner frame inside suction grille.
2. In case of using an infrared remote control, this position will be a signal receiver.  
Refer to the drawing of infrared remote control in detail

3. When it may exceed 30°C and RH 80% in the ceiling or fresh air is inducted into the ceiling, an additional insulation (Thickness 10mm or more of glasswool or polyethylene form) is required.
4. Though the installation is acceptable up to maximum of 910mm square ceiling opening, keep the clearance of 35mm or less between the main unit and the ceiling opening so that the panel overlap allowance can be ensured.

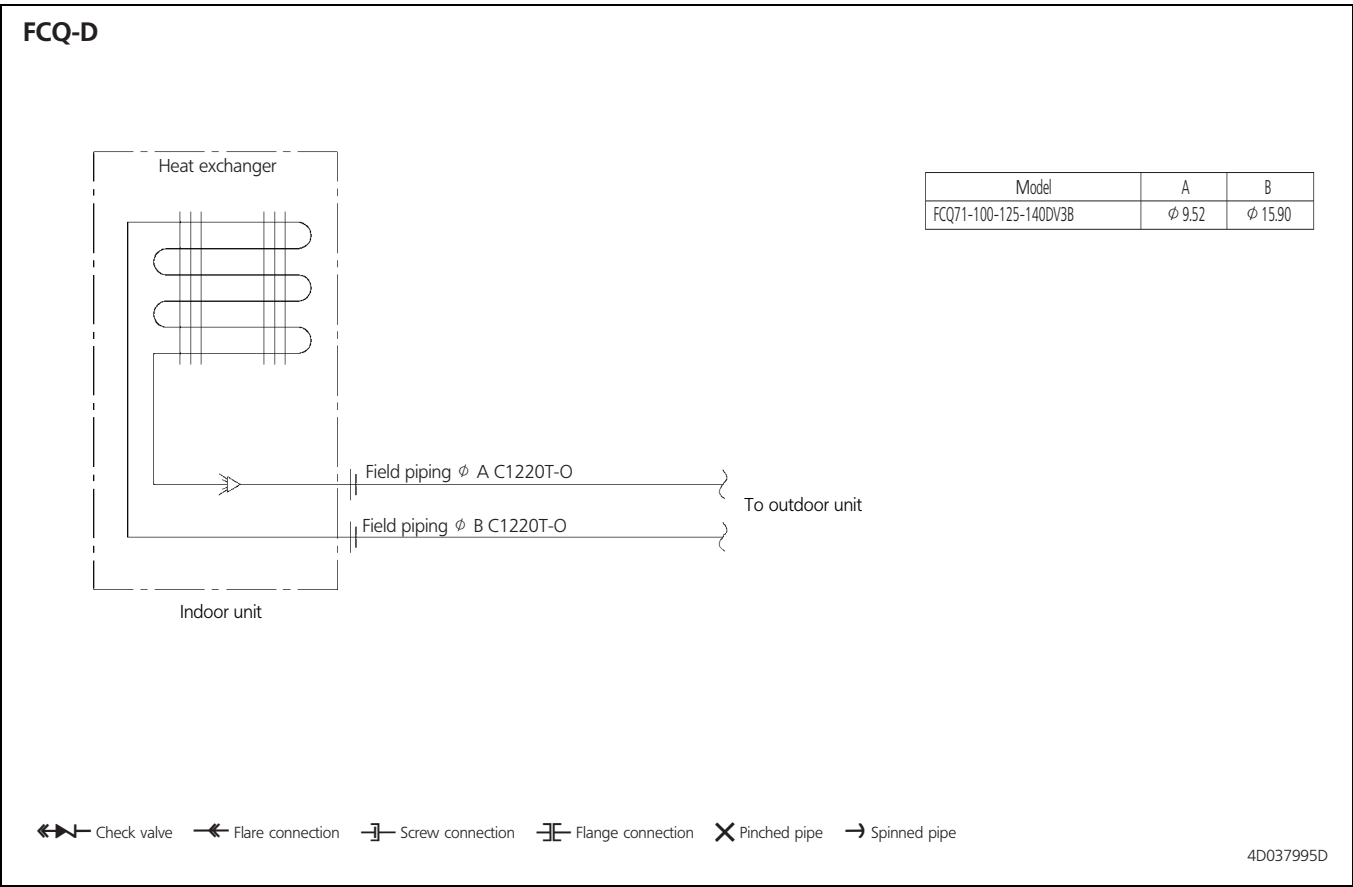
- 1 Liquid pipe connection  $\phi$  9.5 Flare connection
- 2 Gas pipe connection  $\phi$  15.9 Flare connection
- 3 Drain pipe connection VP25 (O.D.  $\phi$  32)
- 4 Power supply connection / wiring / remote control connection
- 5 Air outlet
- 6 Air suction grille
- 7 Corner decoration cover
- 8 Drain hose (option) O.D.  $\phi$  32 (outlet)

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# 5 Piping diagram



## 6 Wiring diagram

### 6 - 1 Wiring diagram

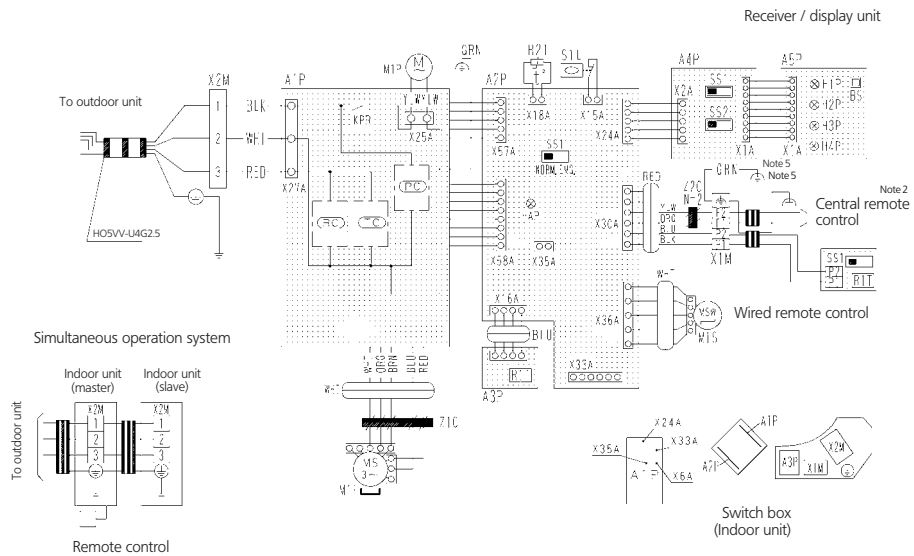
6

#### FCQ71-140D

##### Notes

- In case using central remote control, connect it to the unit in accordance with the attached installation manual.
- Remote controller model varies according to the combination system, confirm engineering data and catalogs, etc. before connecting.
- Confirm the method of setting the selector switch (SS1, SS2) by installation manual and engineering materials, etc.
- Ground the shield of the remote controller cord to the indoor unit (in case of using shield wire). See technical data and catalogues before connecting.

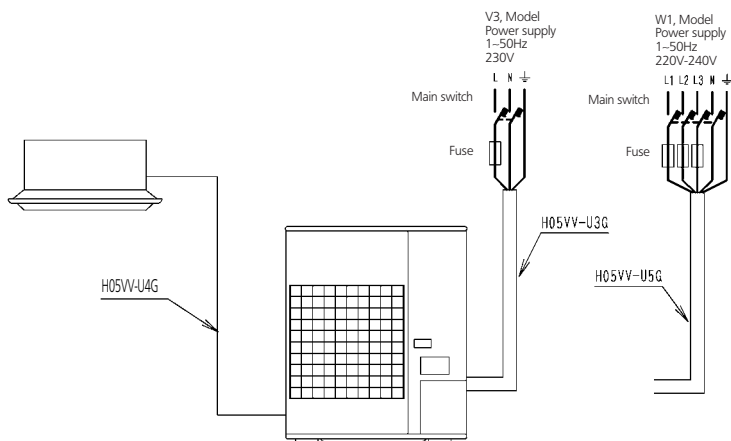
Field wiring Terminal  
 Connector  
 Wire clamp  
 Protective earth (screw)  
 Colours  
 BLK: Black / WHT: White / RED: Red / YLW: Yellow



A1P	Printed circuit board (Power supply)	S1L	Float switch	Receiver / display unit (attached to infrared remote control)	Connector for optional parts
A2P	Printed circuit board (Control)	SS1	Selector switch (emergency)	A4P/A5P	Printed circuit board
A3P	Printed circuit board (Humidity sensor unit)	X1M	Terminal strip (power)	BS1	Push button (on/off)
H4P	Light emitting diode (service monitor green)	X2M	Terminal strip (control)	H1P	Light emitting diode (on-red)
XPR	Magnetic relay (M1P)	PC	Power circuit	H2P	Light emitting diode (timer-green)
M1F	Motor (indoor fan)	RC	Signal receiver circuit	H3P	Light emitting diode (filter sign-red)
M1P	Motor (drain pump)	TC	Signal transmission circuit	H4P	Light emitting diode (defrost-orange)
M1S	Motor (swing flap)	Z1C	Noise filter	SS1	Selector switch (main/sub)
R1T	Thermistor (air)	Z2C	Noise filter	SS2	Selector switch (wireless address set)
R2T	Thermistor (coil)	Wired remote control			
		R1T	Thermistor (air)		
		SS1	Selector switch (main/sub)		

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### 6 - 2 External connection diagram



##### NOTES

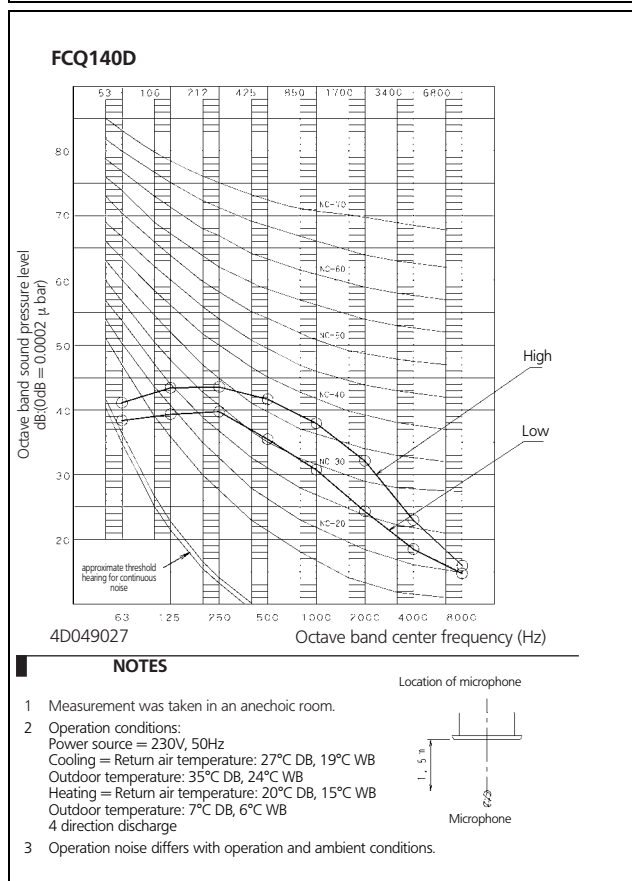
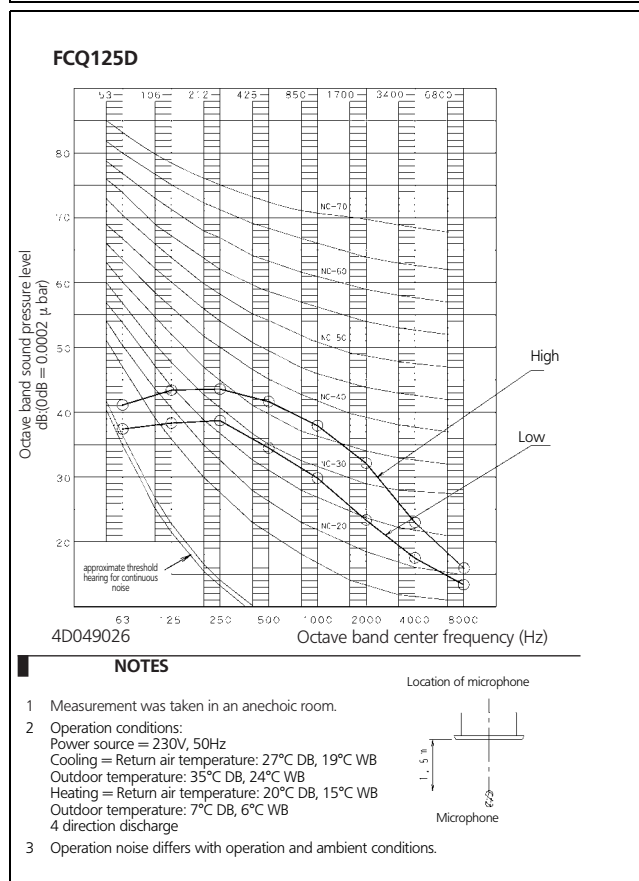
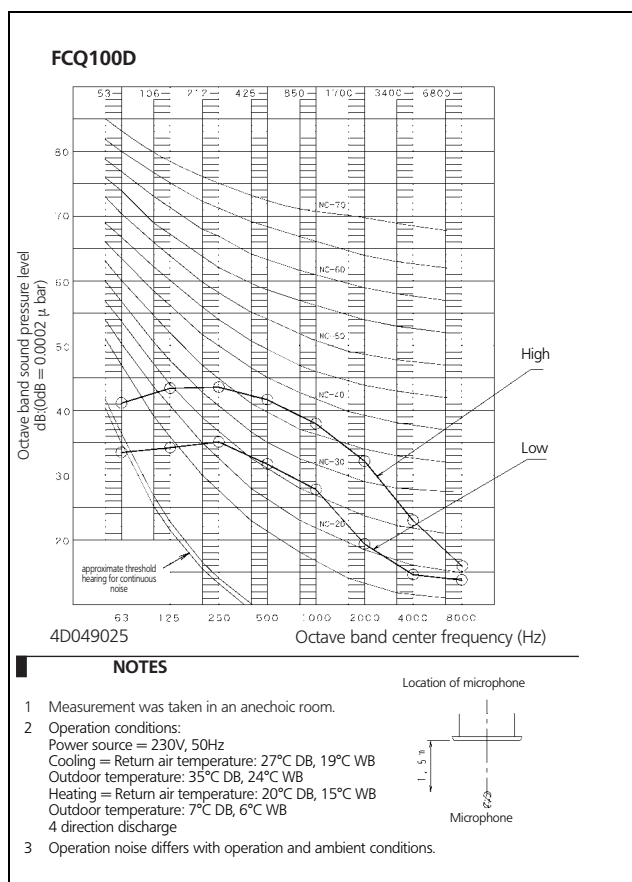
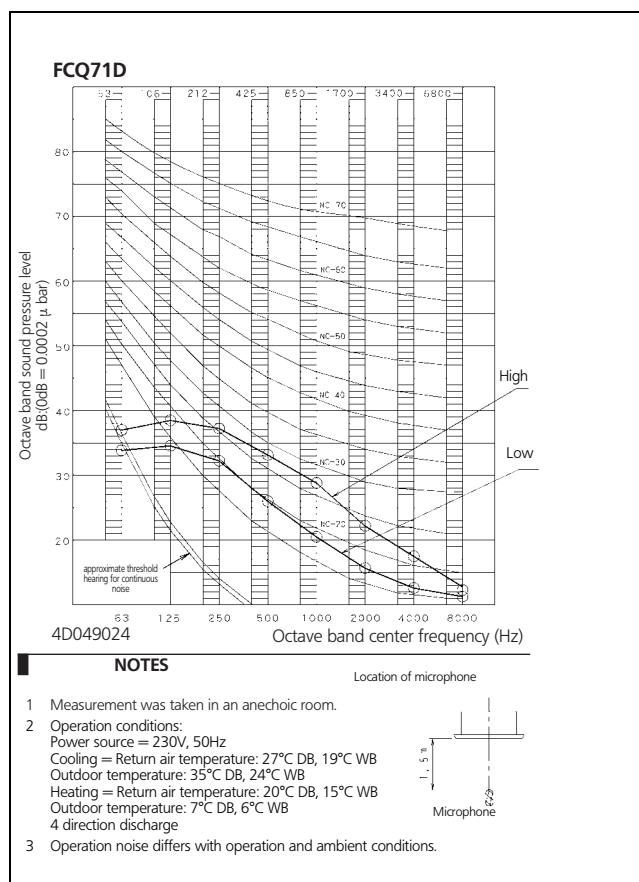
- Line voltage wiring  
Control circuit wiring
- All wiring, components and materials to be produced on the site must comply with the applicable local and national codes.
- Use copper conductors only.
- See wiring diagrams for details.
- Install fuse and main switch for safety.
- All field wiring and components must be provided by a licensed electrician.
- The unit shall be grounded in compliance with the applicable local and national codes.
- Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.
- Never share a common power supply with other equipment.

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## 7 Sound data

### 7 - 1 Sound pressure spectrum

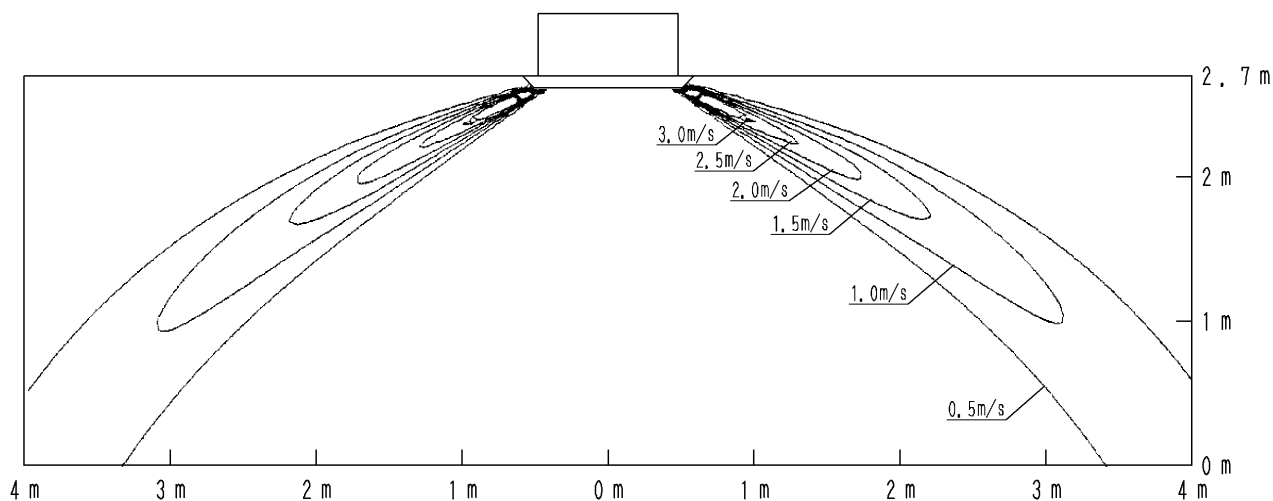


## 8 Air flow pattern

### 8 FCQ71D

Cooling - air velocity distribution

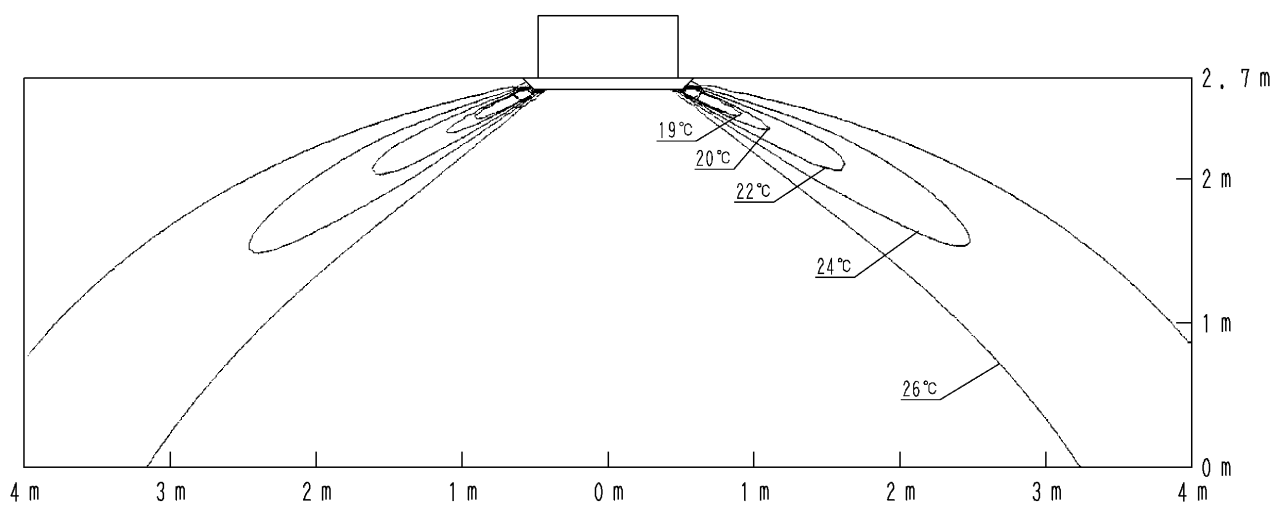
4-way discharge air flow direction: horizontal



### FCQ71D

Cooling - air temperature distribution

4-way discharge air flow direction: horizontal



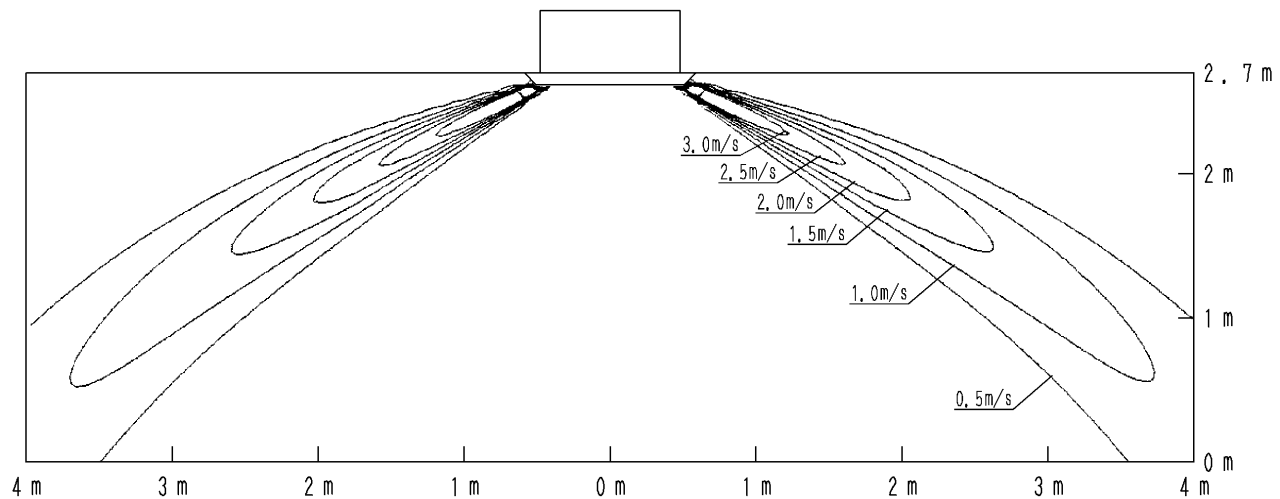
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## 8 Air flow pattern

### FCQ100D

Cooling - air velocity distribution

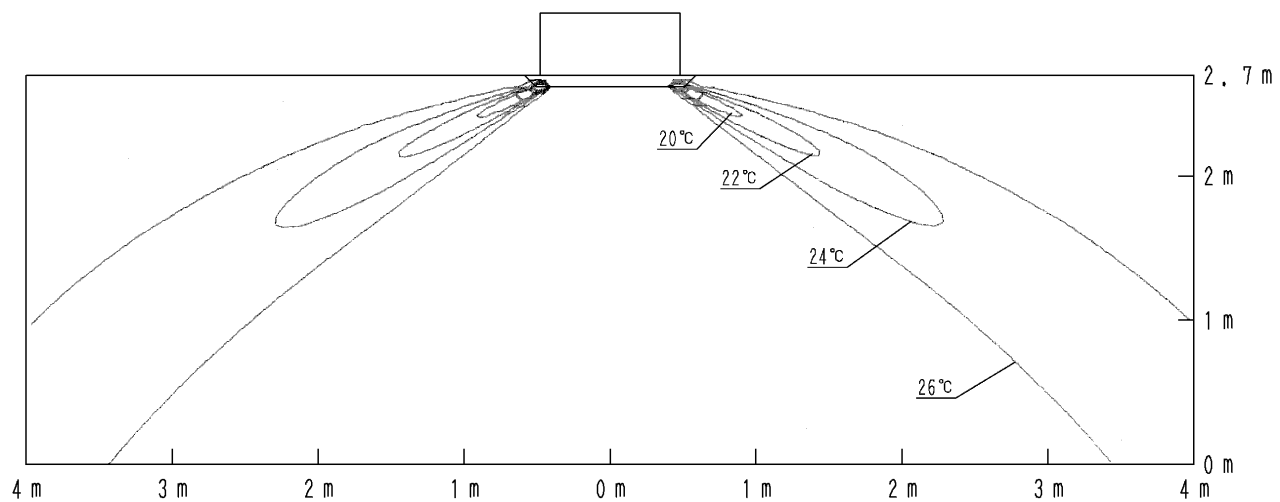
4-way discharge air flow direction: horizontal



### FCQ100D

Cooling - air temperature distribution

4-way discharge air flow direction: horizontal



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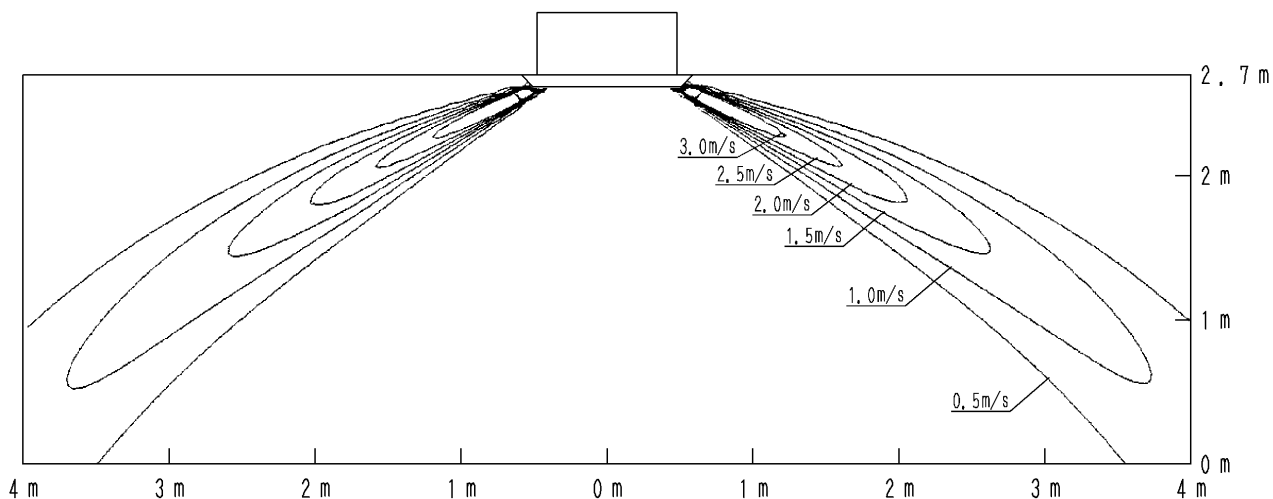
## 8 Air flow pattern

8

FCQ125D

Cooling - air velocity distribution

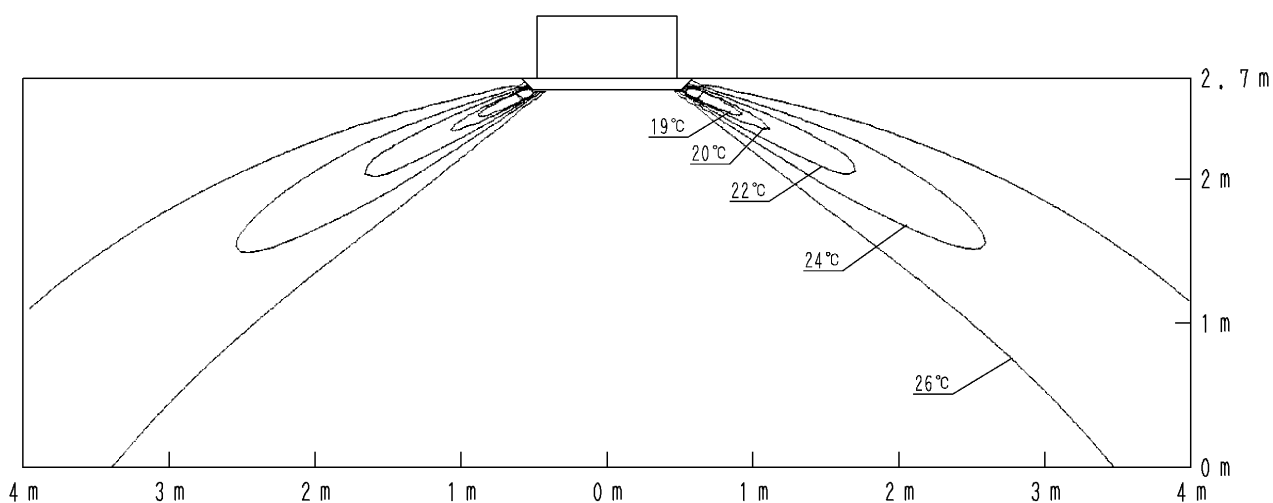
4-way discharge air flow direction: horizontal



FCQ125D

Cooling - air temperature distribution

4-way discharge air flow direction: horizontal



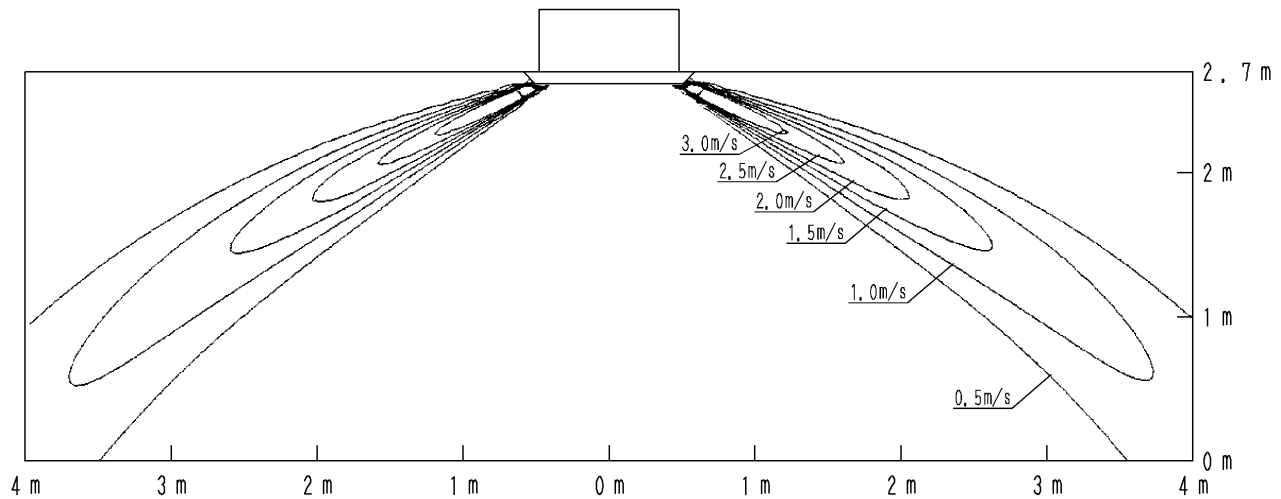
4D049082

## 8 Air flow pattern

### FCQ140D

Cooling - air velocity distribution

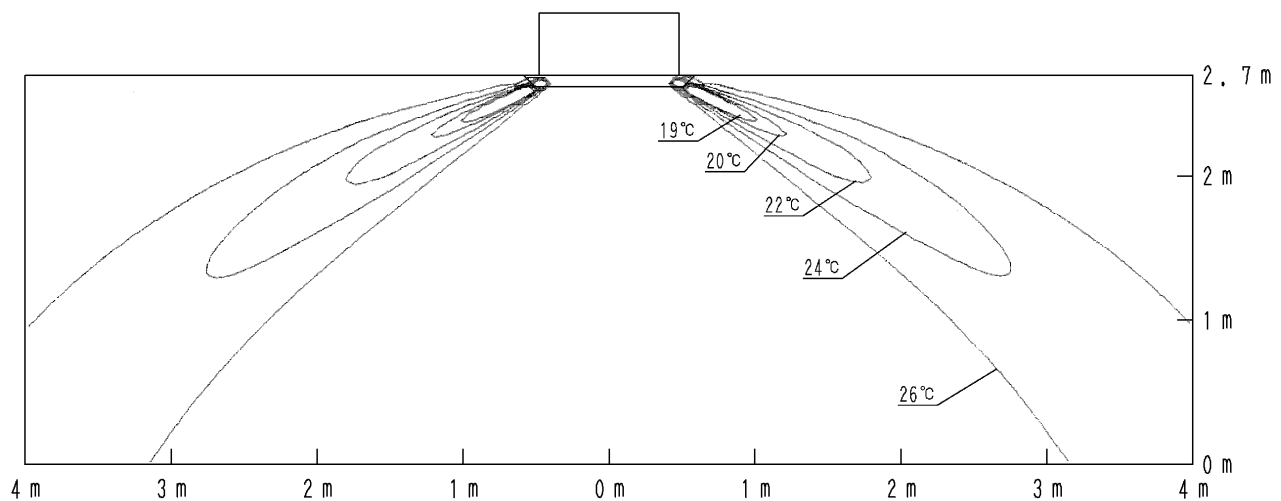
4-way discharge air flow direction: horizontal



### FCQ140D

Cooling - air temperature distribution

4-way discharge air flow direction: horizontal



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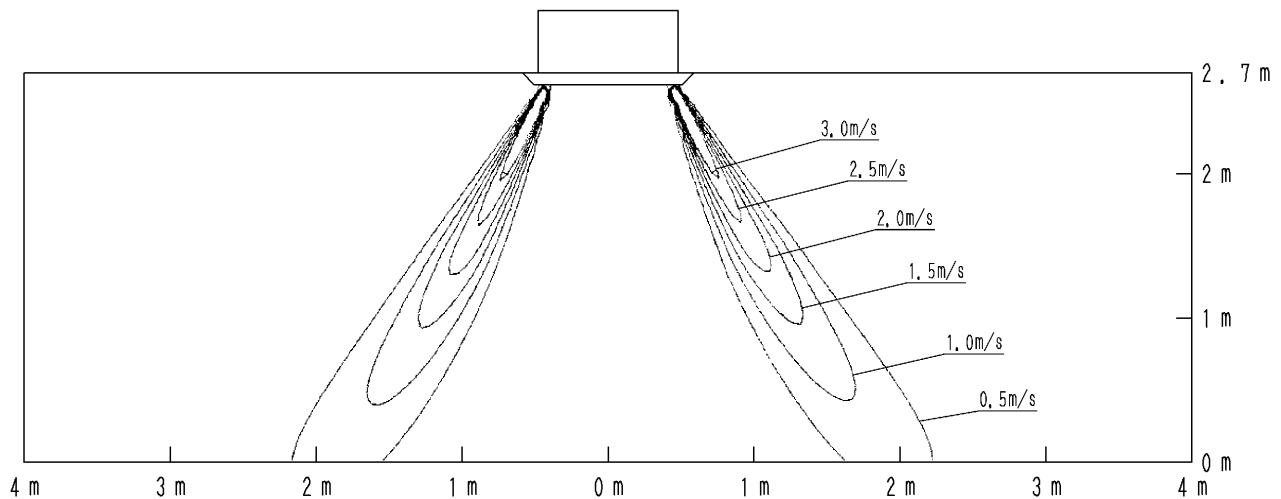
## 8 Air flow pattern

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### FCQ71D

Heating - air velocity distribution

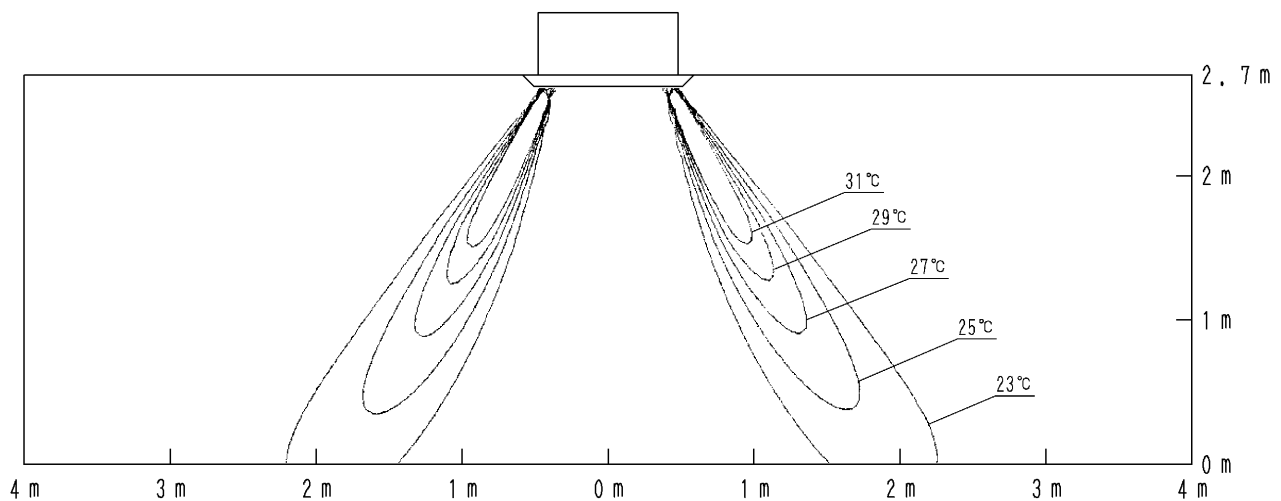
4-way discharge, air flow direction: down



### FCQ71D

Heating - air temperature distribution

4-way discharge, air flow direction: down



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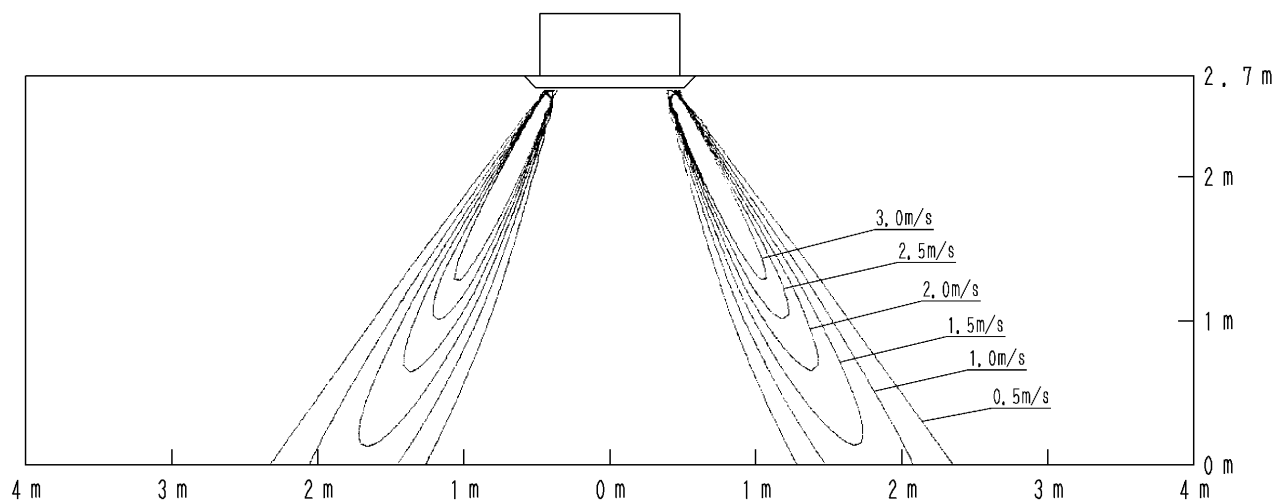


## 8 Air flow pattern

### FCQ100D

Heating - air velocity distribution

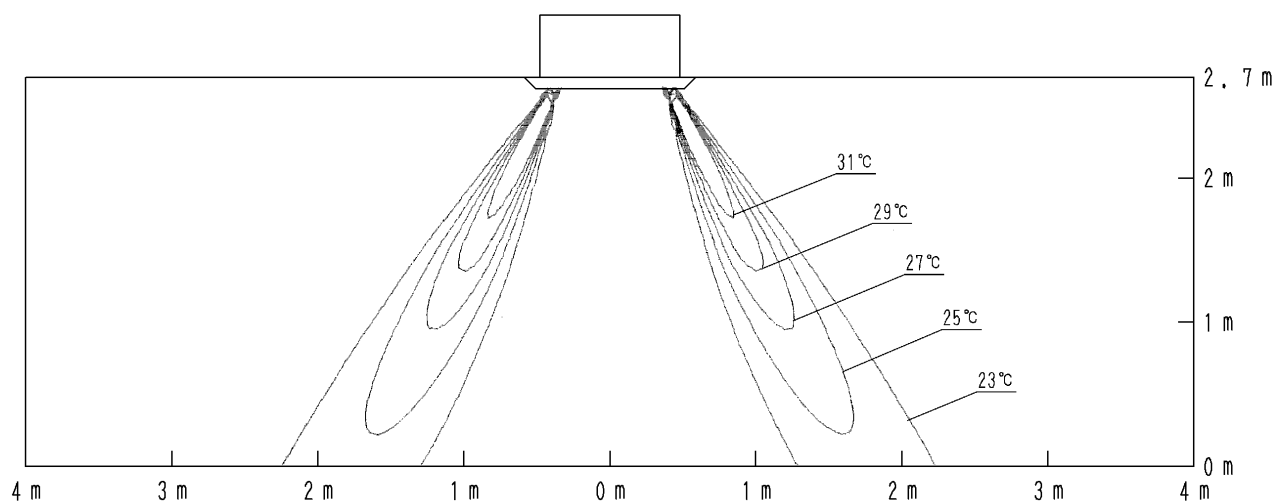
4-way discharge, air flow direction: down



### FCQ100D

Heating - air temperature distribution

4-way discharge, air flow direction: down



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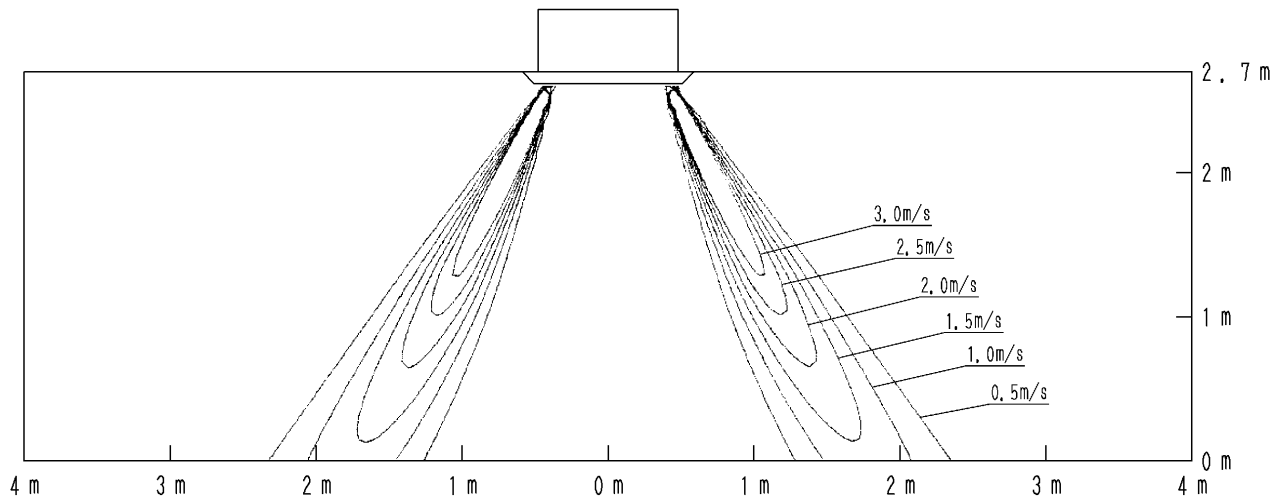
## 8 Air flow pattern

8

### FCQ125D

Heating - air velocity distribution

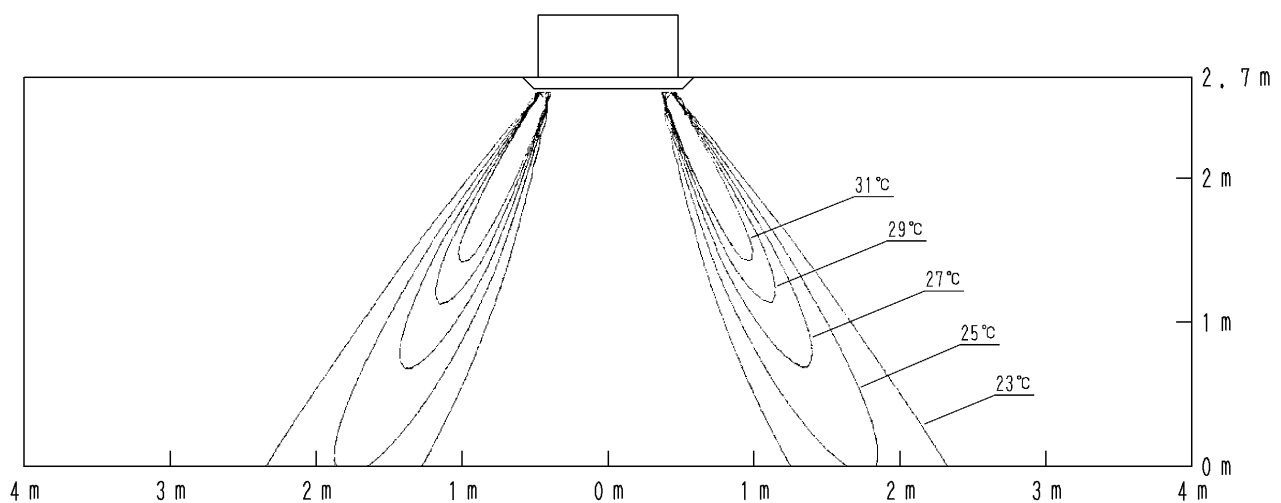
4-way discharge, air flow direction: down



### FCQ125D

Heating - air temperature distribution

4-way discharge, air flow direction: down



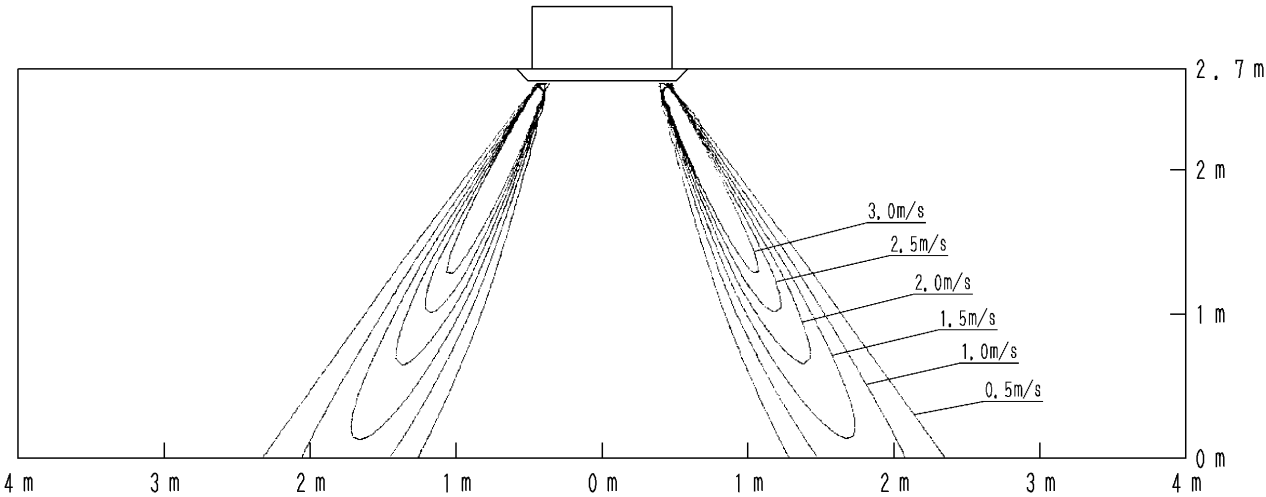
4D049083

# 8 Air flow pattern

## FCQ140D

Heating - air velocity distribution

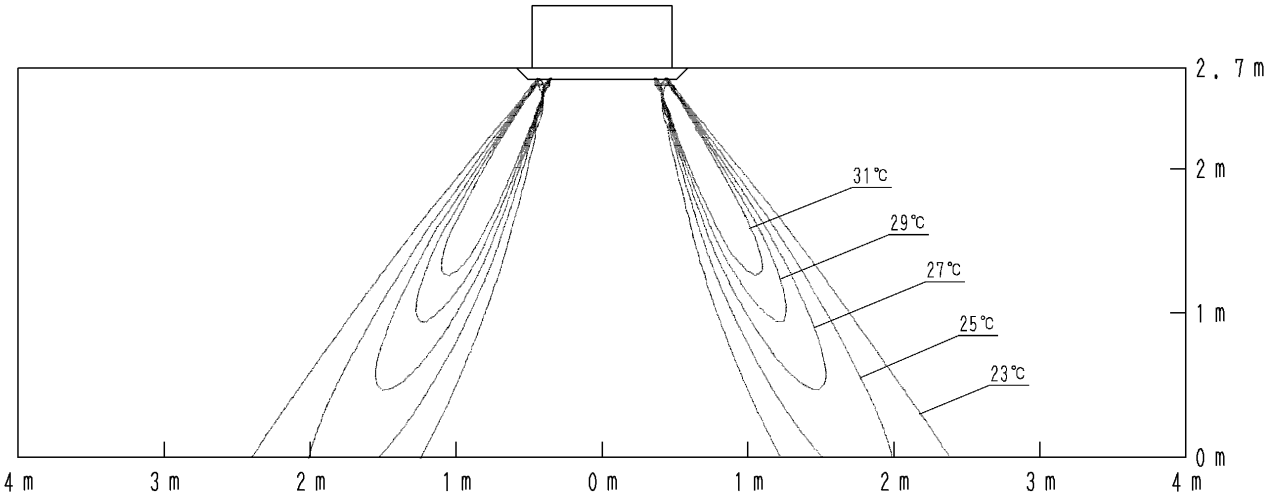
4-way discharge, air flow direction: down



## FCQ140D

Heating - air temperature distribution

4-way discharge, air flow direction: down



4D049087